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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,907	10/01/2003	Masami Shimizu	1232-5171	9386

27123 7590 12/14/2006

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EXAMINER

WHIPKEY, JASON T

ART UNIT	PAPER NUMBER
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2622

DATE MAILED: 12/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/677,907	Applicant(s) SHIMIZU, MASAMI	
	Examiner Jason T. Whipkey	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-15 and 17-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-15 and 17-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 2, 4-15, and 17-29 have been considered but are moot in view of the new grounds of rejection.

Specification

2. The substitute specification is accepted and the corresponding objections are withdrawn.

Claim Objections

3. The amendment to the claims has vitiated the objections in the previous Office action. The corresponding objections are withdrawn.

Claim Rejections - 35 USC § 112

4. The amendment to the claims has vitiated the rejections under 35 U.S.C. 112, second paragraph. The corresponding rejections are withdrawn.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 26 and 27 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 26 and 27 recite a storage medium storing a program capable of being executed by an “information processing apparatus”. Such claimed programs do not define any structural and functional interrelationships between the program and a computer that permit the program’s functionality to be realized.

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program’s functionality to be realized, and is thus statutory. See *In re Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

A recommended replacement for the claims is:

A computer-readable medium storing a computer program for realizing the image processing method according to claim 1.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 2, 4-7, 9, 10, 14, 15, 17-21, and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boler (U.S. Patent Application Publication No. 2006/0187241) in view of Kubo (U.S. Patent Application Publication No. 2001/0035909).

Regarding **claims 1 and 14**, Boler discloses an image processing method for processing complex data (a media object containing an image and metadata; see paragraph 30) including at least first image data (stored in a JPEG stream in a media object; see *id.*) and a first developing condition for said first image data (the metadata streams stored in the media object; see Table 2 and paragraph 41), said method comprising:

setting a second developing condition (updated image processing metadata, wherein the given example concerns cropping coordinates set by a user; see paragraphs 45-46) for said first image data;

developing said first image data based on said second developing condition (a revised display image is produced based on the cropping; see paragraph 46);

generating third image data (a thumbnail) by reducing a data amount of said developed first image data (the display image is shrunk; see paragraph 52); and

updating said complex data with said second developing condition without changing said first image data (the media object's metadata is modified rather than the image data itself; see paragraph 8).

While Boler discloses that second image data (representative thumbnails) are available before and after the image is edited, he is silent with regard to the second image data being stored in the complex data and updating the complex data with the third image data.

Kubo discloses an image recording device, wherein the device:

processes complex data (image data file 50) including second image data (stored in thumbnail storage area 58) of which data amount is less than said first image data (the original image data is reduced to produce the thumbnail; see paragraph 75),

updates said complex data with said third image data (the thumbnail is replaced with an updated representation of the image; see *id.*).

As stated in paragraph 76, an advantage of storing a thumbnail is that the thumbnail can be displayed at a high speed. For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have Boler's system store the thumbnails it generates.

Regarding **claims 2 and 15**, Boler discloses:

displaying said second image data (see paragraph 35); and

displaying said third image data in place of said second image data (see paragraph 52).

Regarding **claims 4 and 17**, Boler discloses:

outputting said developed first image data (the system displays the edited image; see paragraph 46).

Regarding **claims 5 and 18**, Boler discloses:

in said updating, said second image data is replaced by said third image data (see paragraphs 35 and 52).

Regarding **claims 6 and 19**, Boler discloses:

in said updating, said first developing condition is replaced by said second developing condition (the metadata is updated; see paragraph 47).

Regarding **claims 7 and 20**, Kubo discloses:

in said updating, said third image data is added to said complex data (the thumbnail is stored in image data file 50; see paragraph 75).

Regarding **claims 9 and 21**, Boler discloses:

in said updating, said second developing condition is added to said complex data (the metadata is stored; see paragraph 47).

Regarding **claims 10 and 29**, Boler discloses:

displaying a list of a plurality of developing conditions included in said complex data (see paragraph 48).

Regarding **claim 25**, Boler discloses in paragraph 23 that the system can be implemented in a number of electronic devices, including “hand-held devices”. Boler also discloses in

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paragraph 3 that digital cameras and scanners are commonly used to create digital media objects. However, Boler is silent with regard to specifically implementing his invention in a digital camera.

Official Notice is taken that it was well known in the art at the time the invention was made to incorporate image processing in a digital camera, which is one form of hand-held device. An advantage of doing so is that ready-to-print images can be produced without the use of an intermediary computer. For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have Boler's invention included in an image sensing apparatus, such as a digital camera.

Claims 26 and 27 may be treated like claims 1 and 14, respectively. Additionally, Boler discloses that his system may be implemented using a computer executing stored software (see paragraph 23).

9. Claims 8 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boler in view of Kubo and further in view of Chang (U.S. Patent Application Publication No. 2004/0056873).

Claims 8 and 28 may be treated like claims 7 and 20, respectively. However, Boler is silent with regard to displaying a list of images that have data amounts less than that of the first image data.

Chang discloses an imaging system capable of:

displaying a list of a plurality of images of which data amounts are respectively less than that of the first image data included in said complex data (a number of thumbnails are shown on a screen; see paragraph 4).

As stated in paragraph 4, an advantage of displaying a number of thumbnails is that a number of images can be quickly previewed without opening each image. For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have Boler's system display a list of images.

10. Claims 11 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boler in view of Kubo and further in view of Gentile (U.S. Patent Application Publication No. 2003/0043274).

Claims 11 and 22 may be treated like claims 1 and 14, respectively. However, Boler is silent with regard to storing the first image data as non-compressed image data.

Gentile discloses a photo editing method, wherein:

image data is non-compressed image data (cameras can store a captured photo in an uncompressed format; paragraph 7).

As stated in paragraph 7, an advantage of storing image data in a non-compressed format is that the stored data is of higher quality than compressed image data. For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have Boler's system store image data in a non-compressed format.

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11. Claims 12 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boler in view of Kubo and further in view of Chung (U.S. Patent Application Publication No. 2004/0201714).

Claims 12 and 23 may be treated like claims 1 and 14, respectively. However, Boler is silent with regard to storing lossless-compressed image data.

Chung discloses a digital camera that stores data using a lossless compression algorithm (see paragraph 23). As stated in paragraph 23, an advantage of using such an algorithm is that “the initial data may be completely and identically restored to a corresponding decompression algorithm”. For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have Boler’s system perform lossless compression prior to image storage.

12. Claims 13 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boler in view of Kubo and further in view of Jacobsen (U.S. Patent Application Publication No. 2004/0184072).

Claims 13 and 24 may be treated like claims 1 and 14, respectively. However, Boler is silent with regard to storing the second and third image data in a lossy-compressed format.

Jacobsen discloses an imaging system, wherein:

second and third image data is lossy-compressed image data (thumbnails are compressed by thumbnail image generator 30 before storing; see paragraph 35).

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As stated in paragraph 35, an advantage of compressing a small image is that the image can be compressed to approximately 10% of its original size. For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have Boler's system compress the second and third image data in a lossy-compressed format.

Conclusion

13. This action is non-final, since a new ground of rejection (under 35 U.S.C. 101) has been applied to claims 26 and 27, which have not been substantively amended.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason T. Whipkey, whose telephone number is (571) 272-7321. The examiner can normally be reached Monday-Friday from 8 A.M. to 5:30 P.M. eastern standard time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava, can be reached at (571) 272-7304. The fax phone number for the organization where this application is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private

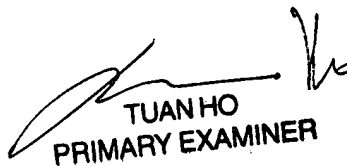
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December 11, 2006


TUAN HO
PRIMARY EXAMINER